

IN THE CLAIMS:

1. (Currently Amended) A truss structure comprising an upper chord member, a lower chord member ~~and~~, a diagonal chord member connected to a parent plate ~~via, and~~ a connection part formed on an end of each of said chord members, wherein

said upper chord member, said lower chord member and said diagonal chord member each comprise a pipe member; and

said connection part comprises a tubular section, and a flat section formed integral and continuously by constrained pattern shaping with said tubular section ~~which are formed of~~ extending from and integral with each said pipe member ~~having a same diameter by a constrained pattern shaping press; and~~ wherein

said connection part is connected to said parent plate via a bolt opening formed in said flat section ~~and is formed of the pipe member by a constrained pattern shaping press to comprise a tubular section to have a curved surface, and extending from and integral with the pipe member, and a flat section being from a flattened pipe member as a single piece having~~ which has a width determined by the diameter of the pipe member, and ~~extending from and integral with the tubular section, the tubular section defining a semi-circular boundary with the said flat section and the flat section including~~ which includes a respective transitional slack ~~portions~~ portion at both ends of the semi-circular boundary ~~of the tubular section.~~

2. (Currently Amended) A truss structure comprising an upper chord member, a lower chord member ~~and~~, a diagonal chord member connected to a parent plate ~~via, and~~ a connection part formed on an end of each of said chord members, wherein

said upper chord member, said lower chord member and said diagonal chord member each comprise a pipe member; and

said connection part comprises a pipe tubular section having a curved surface which is formed integrally with and to extend from said pipe member by a cylindrical drawing process ~~of said pipe member having a same diameter~~, and a flat section formed integral with said pipe tubular section by a flat press; ~~and~~ wherein

said connection part is connected to said parent plate via a bolt opening formed in said flat section ~~and comprises a pipe tubular section being formed of the pipe member by a cylindrical drawing press to have a curved surface, and extending from and integral with the pipe member, and a flat section being formed from a flattened pipe member through a flat press into a single piece having which has~~ width determined by the diameter of the said pipe member, and ~~extending from and integral with the pipe tubular section, the pipe tubular section defining defines~~ a semi-circular boundary with the said flat section ~~and the flat section including which includes a~~ respective transitional slack ~~portions~~ portion at both ends of the semi-circular boundary ~~of the pipe tubular section.~~

3. (Previously Amended) A truss structure according to claim 1, wherein said parent plate includes a rib erected crosswise thereon, and an edge

of said flat section is tapered to allow for each flat section of each chord member to be positioned in close proximity.

4. (Cancelled)

4 5. (Currently Amended) A truss structural member for use in a truss construction including an upper chord member, a lower chord member and a diagonal chord member, each having a connection part formed on an end thereof, wherein said connection part comprises:

Deck
a tubular section having a curved surface which is formed by a cylindrical constrained shaping of a pipe member so as to be integral with and extend from said pipe member, and

a flat section having a bolt opening which is formed integral with said tubular section by a flat compression press, and wherein a bolt opening is formed in said flat section, ~~wherein said connection part comprises a tubular section being formed of a pipe member of the respective chord members by a cylindrical constrained shaping having a curved surface, and extending from and integral with the pipe member, and a flat section being formed from a flattened pipe member through a flat compression press into a single piece having width determined by the diameter of the pipe member, and extending~~ flat section extends from and integral with the said tubular section, ~~the tubular section defining to define a semi-circular boundary with the said flat section and the flat section including which includes~~ respective transitional slack ~~portions~~ portion at

both ends of the semi-circular boundary of the tubular section, ~~and a bolt opening is formed in said flat section.~~

6. (Cancelled)

7. (Cancelled)

5 ~~8.~~ (Previously Added) A truss structure according to claim 2, wherein said connection part further comprises said parent plate and a rib erected crosswise thereon, and wherein an edge of said flat section is tapered to allow for each flat section of each chord member to be positioned in close proximity.

6 ~~9.~~ (Previously Added) A truss structure according to claim 3, wherein the size of the tapered edge of said flat section is determined by the following relationship:

$$\ell \leq \sqrt{2} t/2 + 10 \sqrt{2 + 2.0 d + B/2}, \text{ and } \ell > 3d \text{ (mm)}$$

wherein ℓ is a half length of a distance between two bolt connection centers of respective flat sections of chord members oppositely positioned on the parent plate, d is the diameter of bolt and B is the width of the respective flat sections.

7 ~~10.~~ (Previously Added) A truss structure according to claim ~~8~~⁵, wherein the size of the tapered edge of said flat section is determined by the following relationship:

$$\ell \leq \sqrt{2} t/2 + 10 \sqrt{2 + 2.0 d + B/2}, \text{ and } \ell > 3d \text{ (mm)}$$

Dis
wherein ℓ is a half length of a distance between two bolt connection centers of respective flat sections of chord members oppositely positioned on the parent plate, d is the diameter of bolt and B is the width of the respective flat sections.
